

GRADE 2 GAP ANALYSIS OVERVIEW

No information from the foundation boxes was used in the creation of this report.

Teacher Respondent Topic	# reviewed
Structures and Properties of Matter	2
Interdependent Relationships in Ecosystems	3
Earth Systems: Processes that Shape the Earth	1
Total	6

Responses From:

Meeting Location	Structures and Properties of Matter	Interdependent Relationships in Ecosystems	Earth Systems
Great Falls October 3 rd			
Kalispell November 7 th			
Missoula/Lolo November 8 th	1	1	
Miles City November 13 th			
Red Lodge November 14		1	
Billings November 15			
Bozeman December 3 rd			
Missoula/Lolo December 6 th			1
Great Falls December 10 th			
Shelby December 11 th	1	1	
Glasgow December 12 th			
Havre December 13 th			
Total	2	3	1

Page Left Blank Intentionally for Double Sided Printing

Structure and Properties of Matter

Total respondents:	2				
<u>Montana Science Content Standard 1</u> Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.	2-PS1-1.	2-PS1-2.	2-PS1-3.	2-PS1-4.	Grand Total
1. Develop the abilities necessary to safely conduct scientific inquiry, including (a step-by-step sequence is not implied): (a) asking questions about objects, events, and organisms in the environment, (b) planning and conducting simple investigations	1				1
2. Select and use appropriate tools including technology to make measurements (including metric units) and represent results of basic scientific investigations					
3. Use data to describe and communicate the results of scientific investigations		1		1	2
4. Use models that illustrate simple concepts and compare those models to the actual phenomenon			1		1
5. Identify a valid test in an investigation	1				1
6. Identify how observations of nature form an essential base of knowledge among the Montana American Indians					
<u>Montana Science Content Standard 2</u> Students, through the inquiry process, demonstrate knowledge of properties, forms, changes and interactions of physical and chemical systems.	2-PS1-1.	2-PS1-2.	2-PS1-3.	2-PS1-4.	Grand Total
1. Create mixtures and separate them based on different physical properties (e.g., salt and sand, iron filings and soil, oil and water)					
2. Examine, measure, describe, compare and classify objects in terms of common physical properties	1	1	1	1	4
3. Identify the basic characteristics of light, heat, motion, magnetism, electricity, and sound	1				1
4. Model and explain that matter exists as solids, liquids, and gases and can change from one form to another		1	1	1	3
5. Identify that the position of an object can be described by its location relative to another object and its motions described, and measured by external forces action upon it					
6. identify, build, and describe mechanical systems and the forces acting within those systems			1		1
7. observe, measure and manipulate forms of energy: sound, light, heat, electrical, magnetic					
<u>Montana Science Content Standard 3</u> Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.	2-PS1-1.	2-PS1-2.	2-PS1-3.	2-PS1-4.	Grand Total
1. Identify that plants and animals have structures and systems that serve different functions for growth, survival, and reproduction					
2. Identify, measure, and describe basic requirements of energy and nutritional needs for an organism					
3. Describe and use models that trace the life cycles of different plants and animals and discuss how they are differ from species to species					

4. Explain cause and effect relationships between nonliving and living components with ecosystems; and explain individual response to the changes in the environment including identifying differences between inherited, instinctual, and learned behaviors					
5. Create and use a classification system to group a variety of plants and animals according to their similarities and differences					
<u>Montana Science Content Standard 4</u> Students, through the inquiry process, demonstrate knowledge of the composition, structures, processes and interactions of Earth's systems and other objects in space.	2- PS1- 1.	2- PS1- 2.	2- PS1- 3.	2- PS1- 4.	Grand Total
1. Describe and give examples of earth's changing features					
2. Describe and measure the physical properties of earth's basic materials (including soil, rocks, water and gases) and the resources they provide					
3. Investigate fossils and make inferences about life, the plants, animals, and the environment at that time					
4. Observe and describe the water cycle and the local weather and demonstrate how weather conditions are measured					
5. Identify seasons and explain the difference between weather and climate					
6. Identify objects (e.g., moon, stars, meteors) in the sky and their patterns of movement and explain that light and heat comes from a star called the sun					
7. Identify technology and methods used for space exploration (e.g., star patterns, space shuttles, telescopes)					
<u>Montana Science Content Standard 5</u> Students, through the inquiry process, understand how scientific knowledge and technological developments impact communities, cultures and societies.	2- PS1- 1.	2- PS1- 2.	2- PS1- 3.	2- PS1- 4.	Grand Total
1. Describe and discuss examples of how people use science and technology					
2. Describe a scientific or technological innovation that impacts communities, cultures, and societies					
3. Simulate scientific collaboration by sharing and communicating ideas to identify and describe problems					
4. Use scientific knowledge to make inferences and propose solutions for simple environmental problems					
5. Identify how the knowledge of science and technology influences the development of the Montana American Indian cultures					
<u>Montana Science Content Standard 6</u> Students understand historical developments in science and technology.	2- PS1- 1.	2- PS1- 2.	2- PS1- 3.	2- PS1- 4.	Grand Total
1. Give historical examples of scientific and technological contributions to communities, cultures and societies, including Montana American Indian examples					
2. Describe how scientific inquiry has produced much knowledge about the world and a variety of contributions toward understanding events and phenomenon within the universe					
3. Describe science as a human endeavor and an ongoing process					

Interdependent Relationships in Ecosystems

Total respondents:	3
--------------------	---

<u>Montana Science Content Standard 1</u> Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.	1- LS2- 1.	2- LS2- 2.	2- LS4- 1.	Grand Total
1. Develop the abilities necessary to safely conduct scientific inquiry, including (a step-by-step sequence is not implied): (a) asking questions about objects, events, and organisms in the environment, (b) planning and conducting simple investigations	1			1
2. Select and use appropriate tools including technology to make measurements (including metric units) and represent results of basic scientific investigations	2	1	1	4
3. Use data to describe and communicate the results of scientific investigations	1			1
4. Use models that illustrate simple concepts and compare those models to the actual phenomenon	1	1		2
5. Identify a valid test in an investigation	1			1
6. Identify how observations of nature form an essential base of knowledge among the Montana American Indians				
<u>Montana Science Content Standard 2</u> Students, through the inquiry process, demonstrate knowledge of properties, forms, changes and interactions of physical and chemical systems.	1- LS2- 1.	2- LS2- 2.	2- LS4- 1.	Grand Total
1. Create mixtures and separate them based on different physical properties (e.g., salt and sand, iron filings and soil, oil and water)				
2. Examine, measure, describe, compare and classify objects in terms of common physical properties				
3. Identify the basic characteristics of light, heat, motion, magnetism, electricity, and sound				
4. Model and explain that matter exists as solids, liquids, and gases and can change from one form to another				
5. Identify that the position of an object can be described by its location relative to another object and its motions described, and measured by external forces action upon it				
6. identify, build, and describe mechanical systems and the forces acting within those systems				
7. observe, measure and manipulate forms of energy: sound, light, heat, electrical, magnetic				
<u>Montana Science Content Standard 3</u> Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.	1- LS2- 1.	2- LS2- 2.	2- LS4- 1.	Grand Total
1. Identify that plants and animals have structures and systems that serve different functions for growth, survival, and reproduction	2			2
2. Identify, measure, and describe basic requirements of energy and nutritional needs for an organism	2			2
3. Describe and use models that trace the life cycles of different plants and animals and discuss how they are differ from species to species		1	1	2

4. Explain cause and effect relationships between nonliving and living components with ecosystems; and explain individual response to the changes in the environment including identifying differences between inherited, instinctual, and learned behaviors		1	1	2
5. Create and use a classification system to group a variety of plants and animals according to their similarities and differences	1		1	2
<u>Montana Science Content Standard 4</u> Students, through the inquiry process, demonstrate knowledge of the composition, structures, processes and interactions of Earth's systems and other objects in space.	1-LS2-1.	2-LS2-2.	2-LS4-1.	Grand Total
1. Describe and give examples of earth's changing features				
2. Describe and measure the physical properties of earth's basic materials (including soil, rocks, water and gases) and the resources they provide				
3. Investigate fossils and make inferences about life, the plants, animals, and the environment at that time				
4. Observe and describe the water cycle and the local weather and demonstrate how weather conditions are measured				
5. Identify seasons and explain the difference between weather and climate				
6. Identify objects (e.g., moon, stars, meteors) in the sky and their patterns of movement and explain that light and heat comes from a star called the sun				
7. Identify technology and methods used for space exploration (e.g., star patterns, space shuttles, telescopes)				
<u>Montana Science Content Standard 5</u> Students, through the inquiry process, understand how scientific knowledge and technological developments impact communities, cultures and societies.	1-LS2-1.	2-LS2-2.	2-LS4-1.	Grand Total
1. Describe and discuss examples of how people use science and technology				
2. Describe a scientific or technological innovation that impacts communities, cultures, and societies				
3. Simulate scientific collaboration by sharing and communicating ideas to identify and describe problems				
4. Use scientific knowledge to make inferences and propose solutions for simple environmental problems				
5. Identify how the knowledge of science and technology influences the development of the Montana American Indian cultures				
<u>Montana Science Content Standard 6</u> Students understand historical developments in science and technology.	1-LS2-1.	2-LS2-2.	2-LS4-1.	Grand Total
1. Give historical examples of scientific and technological contributions to communities, cultures and societies, including Montana American Indian examples				
2. Describe how scientific inquiry has produced much knowledge about the world and a variety of contributions toward understanding events and phenomenon within the universe				
3. Describe science as a human endeavor and an ongoing process				

Earth Systems

Total respondents:	1				
<u>Montana Science Content Standard 1</u> Students, through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Develop the abilities necessary to safely conduct scientific inquiry, including (a step-by-step sequence is not implied): (a) asking questions about objects, events, and organisms in the environment, (b) planning and conducting simple investigations					
2. Select and use appropriate tools including technology to make measurements (including metric units) and represent results of basic scientific investigations					
3. Use data to describe and communicate the results of scientific investigations				1	1
4. Use models that illustrate simple concepts and compare those models to the actual phenomenon					
5. Identify a valid test in an investigation					
6. Identify how observations of nature form an essential base of knowledge among the Montana American Indians	1				1
<u>Montana Science Content Standard 2</u> Students, through the inquiry process, demonstrate knowledge of properties, forms, changes and interactions of physical and chemical systems.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Create mixtures and separate them based on different physical properties (e.g., salt and sand, iron filings and soil, oil and water)					
2. Examine, measure, describe, compare and classify objects in terms of common physical properties		1			1
3. Identify the basic characteristics of light, heat, motion, magnetism, electricity, and sound					
4. Model and explain that matter exists as solids, liquids, and gases and can change from one form to another			1	1	2
5. Identify that the position of an object can be described by its location relative to another object and its motions described, and measured by external forces action upon it					
6. identify, build, and describe mechanical systems and the forces acting within those systems					
7. observe, measure and manipulate forms of energy: sound, light, heat, electrical, magnetic					
<u>Montana Science Content Standard 3</u> Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Identify that plants and animals have structures and systems that serve different functions for growth, survival, and reproduction					
2. Identify, measure, and describe basic requirements of energy and nutritional needs for an organism					
3. Describe and use models that trace the life cycles of different plants and animals and discuss how they are differ from species to species			1		1

4. Explain cause and effect relationships between nonliving and living components with ecosystems; and explain individual response to the changes in the environment including identifying differences between inherited, instinctual, and learned behaviors					
5. Create and use a classification system to group a variety of plants and animals according to their similarities and differences					
<u>Montana Science Content Standard 4</u> Students, through the inquiry process, demonstrate knowledge of the composition, structures, processes and interactions of Earth's systems and other objects in space.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Describe and give examples of earth's changing features		1	1	1	3
2. Describe and measure the physical properties of earth's basic materials (including soil, rocks, water and gases) and the resources they provide				1	1
3. Investigate fossils and make inferences about life, the plants, animals, and the environment at that time	1				1
4. Observe and describe the water cycle and the local weather and demonstrate how weather conditions are measured		1		1	2
5. Identify seasons and explain the difference between weather and climate					
6. Identify objects (e.g., moon, stars, meteors) in the sky and their patterns of movement and explain that light and heat comes from a star called the sun					
7. Identify technology and methods used for space exploration (e.g., star patterns, space shuttles, telescopes)					
<u>Montana Science Content Standard 5</u> Students, through the inquiry process, understand how scientific knowledge and technological developments impact communities, cultures and societies.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Describe and discuss examples of how people use science and technology					
2. Describe a scientific or technological innovation that impacts communities, cultures, and societies					
3. Simulate scientific collaboration by sharing and communicating ideas to identify and describe problems		1			1
4. Use scientific knowledge to make inferences and propose solutions for simple environmental problems					
5. Identify how the knowledge of science and technology influences the development of the Montana American Indian cultures					
<u>Montana Science Content Standard 6</u> Students understand historical developments in science and technology.	2-ESS1-1.	2-ESS2-1.	2-ESS2-2.	2-ESS2-3.	Grand Total
1. Give historical examples of scientific and technological contributions to communities, cultures and societies, including Montana American Indian examples					
2. Describe how scientific inquiry has produced much knowledge about the world and a variety of contributions toward understanding events and phenomenon within the universe		1			1
3. Describe science as a human endeavor and an ongoing process					